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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)	
	10/748,655	NEVILL-MANNING ET AL.	
Office Action Summary	Examiner	Art Unit	
	FARHAD ALI	2446	
The MAILING DATE of this communication a Period for Reply	ppears on the cover sheet with the	e correspondence address	
A SHORTENED STATUTORY PERIOD FOR REF WHICHEVER IS LONGER, FROM THE MAILING - Extensions of time may be available under the provisions of 37 CFR after SIX (6) MONTHS from the mailing date of this communication. - If NO period for reply is specified above, the maximum statutory perions a finite or period for reply within the set or extended period for reply will, by state Any reply received by the Office later than three months after the main earned patent term adjustment. See 37 CFR 1.704(b).	DATE OF THIS COMMUNICATION 1.136(a). In no event, however, may a reply be do will apply and will expire SIX (6) MONTHS froute, cause the application to become ABANDO	ON. timely filed om the mailing date of this communication. NED (35 U.S.C. § 133).	
Status			
1) ☐ Responsive to communication(s) filed on 13 2a) ☐ This action is FINAL. 2b) ☐ This action is FINAL. 2b) ☐ This action is application is in condition for allow closed in accordance with the practice under	nis action is non-final. vance except for formal matters, p		
Disposition of Claims			
4) ☐ Claim(s) 1-7,9-12 and 14-22 is/are pending i 4a) Of the above claim(s) is/are withdi 5) ☐ Claim(s) is/are allowed. 6) ☐ Claim(s) 1-7,9-12 and 14-22 is/are rejected. 7) ☐ Claim(s) is/are objected to. 8) ☐ Claim(s) are subject to restriction and Application Papers	rawn from consideration.		
9) The specification is objected to by the Examination The drawing(s) filed on is/are: a) and a specificant may not request that any objection to the Replacement drawing sheet(s) including the correction. The oath or declaration is objected to by the specific specif	ccepted or b) objected to by the objected to by the drawing(s) be held in abeyance. Section is required if the drawing(s) is	See 37 CFR 1.85(a). objected to. See 37 CFR 1.121(d).	
Priority under 35 U.S.C. § 119			
12) ☐ Acknowledgment is made of a claim for foreign a) ☐ All b) ☐ Some * c) ☐ None of: 1. ☐ Certified copies of the priority docume 2. ☐ Certified copies of the priority docume 3. ☐ Copies of the certified copies of the priority docume application from the International Bure * See the attached detailed Office action for a limit	ents have been received. ents have been received in Applicationity documents have been rece eau (PCT Rule 17.2(a)).	ation No ived in this National Stage	
Attachment(s) 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date	4) Interview Summa Paper No(s)/Mail 5) Notice of Informa 6) Other:		

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DETAILED ACTION

Status of Claims:

Claims 1-7, 9-12, and 14-22 are pending.

Claims 1-3, 7, 9-10, 12, 14-15, and 17-19 are amended.

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 07/13/2009 has been entered.

Claim Rejections - 35 USC § 103

- 2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 3. Claims 1-7, 9-12, and 14-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goodman (US 5,999,929 A) in view of Winshell (US 2002/0099813 A1).

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Claim 1

Goodman teaches a method performed by a computer system, the method comprising:

retrieving, by a processor associated with the computer system, a first plurality of uniform resource locators (URLs), where one or more URLs of the first plurality of URLs include a parameter string (Column 5 Lines 1-4, "the spider 14 uses URLs to identify Web pages to be retrieved for analysis");

selecting, by a processor associated with the computer system, one or more parameters present in parameter strings of the first plurality of URLs; selecting, by a processor associated with the computer system, a first URL from the retrieved first plurality of URLs, where the first URL includes the selected one or more parameters; generating, by a processor associated with the computer system, a second plurality of different URLs having different parameter combinations of the one or more selected parameters (Column 6 line 62 – Column 7 line 5, "Since, as described above, a single Web page can be identified by different links, it will be desirable to determine when multiple links, which can be associated with the same and/or multiple classes, in fact identify the same Web page. To accomplish that operation, the Web page analyzer 15 converts each link to the canonical form, using URL "re-write rules" that it develops and stores in the URL re-write

rulebase 16B. The Web page analyzer 15 generates the re-write rules as it analyzes Web pages received from the spider 14");

retrieving, by a processor associated with the computer system, content using the first URL (Column 5 Lines 5- 9 "After the spider 14 receives a Web page for analysis, it caches the Web page locally within the link referral system 10 with other cached Web pages, retrieved earlier by the spider 14, for later bulk analysis by the web page analyzer 15");

retrieving, by a processor associated with the computer system, content using the <u>second</u> plurality of different URLs; comparing, by a processor <u>associated with</u> the computer system, the content retrieved using the first URL to the content retrieved using the <u>second</u> plurality of different URLs (Column 7 lines 41-50" In addition, the Web page analyzer can process each candidate URL generated by eliminating portions from the beginning of the World Wide Web address (such as candidate URL (1)) to eliminate portions from the end of the World Wide Web address, and each candidate URL generated by eliminating portions from the end of the World Wide Web address (such as candidate URLs (2), (3) and (4)) to eliminate portions from the beginning of the World Wide Web address"); identifying, based on the comparing, one of the parameter combinations, that, when present in a particular URL, results in retrieving content that is approximately the same as the content corresponding to the first URL, the identifying being performed by a processor associated with the computer system; and generating, by a processor associated with the computer system, one or more URL rewrite rules based on the identified one of the parameter

combinations (Column 7-8 Lines 24-53, "In generating the URL re-write rules, the Web page analyzer 15 generally processes the URL from the outward most portions of the respective World Wide Web addresses, eliminating portions of the respective series, as defined by the separators, to determine candidate URLS. For the illustrative URL above, HTTP://www.netscape.com/ index.html", candidate URLs will generally include, for example, eliminating portions from the beginning of the World Wide Web address").

Goodman does not specifically disclose the parameter string <u>comprising at least</u> one parameter and a value associated with the at least one parameter.

Winshell teaches in Paragraph [0033] "Any implementation will have a method for specifying a set of rewriting rules. Each rule will specify the path part of the URL to be matched in the original URL and the set of parameter names whose names and values are to be rewritten into the path part of the modified URL entry by the rewriting software" in order to "to determine the specific query parameters that are to be moved (Paragraph [0022]).

It would have been obvious to one of ordinary skill in the art at the time of the invention to create the invention of Goodman reference to include "Any implementation will have a method for specifying a set of rewriting rules. Each rule will specify the path part of the URL to be matched in the original URL and the set of parameter names whose names and values are to be rewritten into the path part of the modified URL

entry by the rewriting software" as taught by Winshell in order to "determine the specific query parameters that are to be moved (Paragraph [0022]).

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Claim 2

The modified Goodman teaches the method of claim 1, where the <u>second</u> <u>plurality of different URLs includes</u> the first URL with no parameters, the first URL with <u>one parameter of the one or more parameters</u>, and the first URL with <u>two or more</u> of the one or more parameters (Column 7 Lines 24-28, "In generating the URL re-write rules, the Web page analyzer 15 generally processes the URL from the outward most portions of the respective World Wide Web addresses, eliminating portions of the respective series, as defined by the separators, to determine candidate URLS", and also see Column 7 Lines 28-50).

Claim 3

The modified Goodman teaches the method of claim 1, further comprising:

performing the <u>selecting</u> a first URL, the generating a <u>second</u> plurality of different URLs, the retrieving content using the first URL, the retrieving content using the plurality of URLs, the comparing the content, and the identifying one of the parameter combinations, for multiple different first URLs <u>of the first plurality of URLs</u>, each first URL including the one or more parameters; and

generating the one or more URL rewrite rules for the identified one of the parameter combinations for each of the first URLs (See Claim 1 rejection).

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Claim 4

The modified Goodman teaches the method of claim 3, where the rewrite rules specify that parameters that do not occur in a threshold number of the identified one of the parameter combinations are to be removed (Column 8 Lines 30-33, "After generating the score, the Web page analyzer 15 will store the candidate re-write rule in the URL re-write rulebase 16B if the score is below a predetermined threshold value").

Claim 5

The modified Goodman teaches the method of claim 1, wherein each rewrite rule applies to a particular web site or web host (Column 5 Lines 17-21, "To assist in the duplicate Web page consolidation operation, the Web page analyzer 15 develops the URL re-write rulebase 16B, which contains rules which are used by the Web page analyzer 15 to convert URLs to respective canonical forms").

Claim 6

The modified Goodman teaches the method of claim 1, where the identified one of the parameter combinations includes a minimum number of parameters with respect other ones of the parameter combinations (Column 7 Lines 40-50, examples show removing portions from the "beginning" and "end" of the World Wide Web address without ever actually removing the first unique part of the URL).

Claim 7

Goodman teaches a method, performed by a computer system, for converting a uniform resource locator (URL) into a canonical form of the URL, the method comprising:

receiving a URL that refers to content and that includes a parameter <u>string</u>

(Column 5 Lines 1-4, "the spider 14 uses URLs to identify Web pages to be retrieved for analysis");

selecting, by a processor of the computer system, a rewrite rule by receiving a plurality of URLs that <u>each include a particular</u> parameter <u>string</u>, where the <u>particular</u> <u>parameter string</u> includes a combination of the one or more parameters selected from the parameter string included in the received URL, and identifying parameters of the one or more parameters that do not result in retrieving substantially different content, when present in a URL (Column 7-8 Lines 24-53, "In generating the URL re-write rules, the Web page analyzer 15 generally processes the URL from the outward most portions of the respective World Wide Web addresses, eliminating portions of the respective series, as defined by the separators, to determine candidate URLS. For the illustrative URL above, HTTP://www.netscape.com/ index.html", candidate URLs will generally include, for example, eliminating portions from the beginning of the World Wide Web address");

applying, by <u>a</u> processor <u>of the computer system</u>, the rewrite rule to the URL by removing the parameters that do not contribute to content from the URL; and outputting the rewritten URL as the canonical form of the URL (Column 5 Lines 17-21, "To assist

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in the duplicate Web page consolidation operation, the Web page analyzer 15 develops the URL re-write rulebase 16B, which contains rules which are used by the Web page analyzer 15 to convert URLs to respective canonical forms").

Goodman does not specifically disclose the parameter string including <u>one or</u> more parameters and values associated with the one or more parameters.

Winshell teaches in Paragraph [0033] "Any implementation will have a method for specifying a set of rewriting rules. Each rule will specify the path part of the URL to be matched in the original URL and the set of parameter names whose names and values are to be rewritten into the path part of the modified URL entry by the rewriting software" in order to "to determine the specific query parameters that are to be moved (Paragraph [0022]).

It would have been obvious to one of ordinary skill in the art at the time of the invention to create the invention of Goodman reference to include "Any implementation will have a method for specifying a set of rewriting rules. Each rule will specify the path part of the URL to be matched in the original URL and the set of parameter names whose names and values are to be rewritten into the path part of the modified URL entry by the rewriting software" as taught by Winshell in order to "determine the specific query parameters that are to be moved (Paragraph [0022]).

Claim 9

The modified Goodman teaches the method of claim 7, where the identifying parameters of the one or more parameters includes; retrieving <u>first</u> content corresponding to a <u>first</u> URL including a <u>first</u> combination of parameters;

retrieving second content corresponding to a second URL including a second combination of parameters, where the first combination of parameters includes at least one parameter not included in the second combination of parameters; and

identifying first content as substantially the same as the second content (Column 8 Lines 1-9, "If the Web page analyzer 15 determines in step 2b that the URLs in the entry are not identical to each other, it (that is, the Web page analyzer 15) find the shortest substitution rule that textually rewrites the longer URL into the shorter URL. For example, the shortest rule to change http://www.netscape.com/index.html" to HTTP://netscape.com/index.html" is to replace "www." with "" (that is, delete "www."). This rule is now a "candidate" rewrite rule").

Claim 10

The modified Goodman teaches the method of claim 9, where the <u>second</u> combination of parameters includes no parameters, <u>an individual parameter of the first</u> <u>parameter combination</u>, or a combination of two or more parameters of the first <u>parameter combination</u> (Column 7 Lines 24-28, "In generating the URL re-write rules, the Web page analyzer 15 generally processes the URL from the outward most portions of the respective World Wide Web addresses, eliminating portions

of the respective series, as defined by the separators, to determine candidate URLS", and also see Column 7 Lines 28-50).

Claim 11

The modified Goodman teaches the method of claim 7, where the rewrite rule applies to a particular web site or web host (Column 5 Lines 17-21, "To assist in the duplicate Web page consolidation operation, the Web page analyzer 15 develops the URL re-write rulebase 16B, which contains rules which are used by the Web page analyzer 15 to convert URLs to respective canonical forms").

Claim 12

Goodman teaches one or more devices comprising:

at least one fetch bot to download content on a network from locations specified by uniform resource locators (URLs) (Column 4 Lines 60-65, "spider");

a content manager to extract URLs from the downloaded content (Column 5 Lines 5-10, "Web page analyzer");

a rewrite component to receive a URL that refers to content and that includes a parameter <u>string</u>, apply a predetermined rewrite rule to the URL that removes the at least one parameter from the URL when the at least one parameter does not affect the content referred to by the URL, where the predetermined rewrite rule is determined by receiving a plurality of URLs that include parameter strings comprising combinations of

parameters, and identifying parameters in the parameter string that do not result in retrieving substantially different content, when present in a URL; and output the rewritten URL as the canonical form of the URL (Column 5 Lines 17-21, "To assist in the duplicate Web page consolidation operation, the Web page analyzer 15 develops the URL re-write rulebase 16B, which contains rules which are used by the Web page analyzer 15 to convert URLs to respective canonical forms"); and a URL manager to store the canonical form of the URL (Column 5 Lines 30-33, "The Web page analyzer 15 stores information regarding the identifications for the various classes and the Web page assignment information in the link class database 17").

Goodman does not specifically disclose the parameter string including at least one parameter <u>and a value associated with the at least one parameter</u>.

Winshell teaches in Paragraph [0033] "Any implementation will have a method for specifying a set of rewriting rules. Each rule will specify the path part of the URL to be matched in the original URL and the set of parameter names whose names and values are to be rewritten into the path part of the modified URL entry by the rewriting software" in order to "to determine the specific query parameters that are to be moved (Paragraph [0022]).

It would have been obvious to one of ordinary skill in the art at the time of the invention to create the invention of Goodman reference to include "Any implementation will have a method for specifying a set of rewriting rules. Each rule will specify the path

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part of the URL to be matched in the original URL and the set of parameter names whose names and values are to be rewritten into the path part of the modified URL entry by the rewriting software" as taught by Winshell in order to "determine the specific query parameters that are to be moved (Paragraph [0022]).

Claim 14

The modified Goodman teaches the one or more devices of claim 12, where the identifying

parameters in the parameter <u>string</u> includes; retrieving <u>first</u> content corresponding to a <u>first</u> URL including a <u>first</u> combination of parameters;

retrieving second content corresponding to a second URL including a second combination of parameters, where the first combination of parameters includes at least one parameter not included in the second combination of parameters; and identifying the first content as substantially the same as the second content (Column 8 Lines 1-9, "If the Web page analyzer 15 determines in step 2b that the URLs in the entry are not identical to each other, it (that is, the Web page analyzer 15) find the shortest substitution rule that textually rewrites the longer URL into the shorter URL. For example, the shortest rule to change http://www.netscape.com/index.html" to "HTTP://netscape.com/index.html" is to replace "www." with "" (that is, delete "www."). This rule is now a "candidate" rewrite rule").

Claim 15

The modified Goodman teaches the one or more devices of claim 14, where the second combination of parameters includes an individual parameter of the first parameter combination, or a combination of two or more parameters of the first parameter combination (Column 7 Lines 24-28, "In generating the URL re-write rules, the Web page analyzer 15 generally processes the URL from the outward most portions of the respective World Wide Web addresses, eliminating portions of the respective series, as defined by the separators, to determine candidate URLS", and also see Column 7 Lines 28-50).

Claim 16

The modified Goodman teaches the one or more devices of claim 12, where each rewrite rule applies to a particular web site or web host (Column 5 Lines 17-21, "To assist in the duplicate Web page consolidation operation, the Web page analyzer 15 develops the URL re-write rulebase 16B, which contains rules which are used by the Web page analyzer 15 to convert URLs to respective canonical forms").

Claim 17

Goodman teaches a system comprising:

one or more devices comprising means for receiving a first uniform resource locator (URL) including a parameter string, (Column 5 Lines 1-4, "the spider 14 uses URLs to identify Web pages to be retrieved for analysis");

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means for retrieving content corresponding to the first URL (Column 5 Lines 5"After the spider 14 receives a Web page for analysis, it caches the Web page
locally within the link referral system");

means for retrieving content corresponding to a plurality of URLs having different parameter combinations of the one or more parameters, where the one or more parameters are selected from the parameter string; means for identifying the parameter combination from the plurality of URLs that corresponds to content that is approximately the same as the content corresponding to the first URL and that contains a minimum number of parameters compared to other parameter combinations; (Column 7-8 Lines 24-53, "In generating the URL re-write rules, the Web page analyzer 15 generally processes the URL from the outward most portions of the respective World Wide Web addresses, eliminating portions of the respective series, as defined by the separators, to determine candidate URLS. For the illustrative URL above, HTTP://www.netscape.com/ index.html", candidate URLs will generally include, for example, eliminating portions from the beginning of the World Wide Web addresse"); and

means for generating one or more URL rewrite rules based on the identified parameter combination (Column 5 Lines 17-21, "To assist in the duplicate Web page consolidation operation, the Web page analyzer 15 develops the URL re-write rulebase 16B, which contains rules which are used by the Web page analyzer 15 to convert URLs to respective canonical forms").

Goodman does not specifically disclose the parameter string <u>includes</u> one or more parameters <u>and values associated with the one or more parameters</u>.

Winshell teaches in Paragraph [0033] "Any implementation will have a method for specifying a set of rewriting rules. Each rule will specify the path part of the URL to be matched in the original URL and the set of parameter names whose names and values are to be rewritten into the path part of the modified URL entry by the rewriting software" in order to "to determine the specific query parameters that are to be moved (Paragraph [0022]).

It would have been obvious to one of ordinary skill in the art at the time of the invention to create the invention of Goodman reference to include "Any implementation will have a method for specifying a set of rewriting rules. Each rule will specify the path part of the URL to be matched in the original URL and the set of parameter names whose names and values are to be rewritten into the path part of the modified URL entry by the rewriting software" as taught by Winshell in order to "determine the specific query parameters that are to be moved (Paragraph [0022]).

Claim 18

Goodman teaches a computer-readable memory device including programming instructions executed by a processor, the programming instructions comprising:

instructions for receiving a first uniform resource locator (URL) including a parameter string, (Column 5 Lines 1-4, "the spider 14 uses URLs to identify Web pages to be retrieved for analysis");

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instructions for retrieving content corresponding to the first URL (Column 5

Lines 5- "After the spider 14 receives a Web page for analysis, it caches the Web

page locally within the link referral system");

instructions for retrieving content corresponding to a plurality of URLs having different parameter combinations of the one or more parameters, where the one or more parameters are selected from the parameter string; instructions for identifying the parameter combination from the plurality of URLs that corresponds to content that is approximately the same as the content corresponding to the first URL and that includes a minimum number of parameters (Column 7-8 Lines 24-53, "In generating the URL re-write rules, the Web page analyzer 15 generally processes the URL from the outward most portions of the respective World Wide Web addresses, eliminating portions of the respective series, as defined by the separators, to determine candidate URLS. For the illustrative URL above, HTTP://www.netscape.com/index.html", candidate URLs will generally include, for example, eliminating portions from the beginning of the World Wide Web address"); and

instructions for generating one or more URL rewrite rules based on the identified parameter combination (Column 5 Lines 17-21, "To assist in the duplicate Web page consolidation operation, the Web page analyzer 15 develops the URL re-write rulebase 16B, which contains rules which are used by the Web page analyzer 15 to convert URLs to respective canonical forms").

Goodman does not specifically disclose the parameter string <u>includes</u> one or more parameters <u>and values associated</u> with the one or more parameters.

Winshell teaches in Paragraph [0033] "Any implementation will have a method for specifying a set of rewriting rules. Each rule will specify the path part of the URL to be matched in the original URL and the set of parameter names whose names and values are to be rewritten into the path part of the modified URL entry by the rewriting software" in order to "to determine the specific query parameters that are to be moved (Paragraph [0022]).

It would have been obvious to one of ordinary skill in the art at the time of the invention to create the invention of Goodman reference to include "Any implementation will have a method for specifying a set of rewriting rules. Each rule will specify the path part of the URL to be matched in the original URL and the set of parameter names whose names and values are to be rewritten into the path part of the modified URL entry by the rewriting software" as taught by Winshell in order to "determine the specific query parameters that are to be moved (Paragraph [0022]).

Claim 19

The modified Goodman teaches the system of claim 17, where the <u>different</u> parameter <u>combinations comprise</u> <u>an individual parameter of the one or more</u> <u>parameters</u>, or a <u>combination of two or more parameters</u> of the one or more <u>parameters</u> (Column 7 Lines 24-28, "In generating the URL re-write rules, the Web page analyzer 15 generally processes the URL from the outward most portions of the

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respective World Wide Web addresses, eliminating portions of the respective series, as defined by the separators, to determine candidate URLS", and also see Column 7 Lines 28-50).

Claim 20

The modified Goodman teaches the computer-readable memory device of claim 18, where the instructions for receiving a first URL, the instructions for retrieving content corresponding to the first URL, the instructions for retrieving content corresponding to a plurality of URLs, and the instructions for identifying the parameter combination are performed for multiple first URLs, each first URL including the one or more parameters (See claim 18 rejection), and where the one or more URL rewrite rules specify that parameters that do not occur in a threshold number of the identified parameter combinations are to be removed (Column 8 Lines 30-33, "After generating the score, the Web page analyzer 15 will store the candidate re-write rule in the URL re-write rulebase 16B if the score is below a predetermined threshold value").

Claim 21

The modified Goodman teaches the system of claim 17, further comprising: means for determining whether the content that corresponds to the plurality of URLs is approximately the same as the content that corresponds to the first URL using a similarity hash function (Hash function is a well known function for comparing documents. Applicant admits in paragraph [0041] of specification "A document having "approximately the same content" as another document may be

determined using any of a number of known document comparison techniques, such as comparison techniques based on a similarity hash").

Claim 22

The modified Goodman teaches the computer-readable memory device of claim 18, where the rewrite rules specify that parameters that do not occur in a threshold number of the identified parameter combinations are to be removed (Column 8 Lines 30-33, "After generating the score, the Web page analyzer 15 will store the candidate re-write rule in the URL re-write rulebase 16B if the score is below a predetermined threshold value").

Response to Arguments

4. Applicant's arguments with respect to claims 1-7, 9-12, and 14-22 have been considered but are most in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to FARHAD ALI whose telephone number is (571)270-1920. The examiner can normally be reached on Monday thru Friday, 7:30am to 5:00pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey C. Pwu can be reached on (571) 272-6798. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Farhad Ali/ Examiner, Art Unit 2446

/Jeffrey Pwu/ Supervisory Patent Examiner, Art Unit 2446